IN THE CLAIMS

1-28 (canceled)

29. (new) A thermolabile liposome having a controlled temperature for releasing the liposome content, wherein said thermolabile liposome comprises at least one phosphatidylcholine with a main transition temperature in the range from 0 to 80°C and more than 15 to 70% by weight of phosphatidyl-oligoglycerol.

30. (new) The liposome as claimed in claim 29, said at least one phosphatidylcholine is selected from the group consisting of 1-palmitoyl-2-olioylglycero-3-phosphocholine, 1-stearoyl-2-olioyl-3-phosphocholine, 1-palmitoyl-2-lauroyl-glycero-3-phosphocholine, 1-behenoyl-2-olioyl-glycero-3-phosphocholine, 1-stearoyl-2-lauroyl-glycero-3-phosphocholine, 1,3-dimyristoylglycero-2-phosphocholine, 1,2-dimyristoylglycero-3-phosphocholine, 1-palmitoyl-2-myristoylglycero-3-phosphocholine, 1-stearoyl-2-myristoylglycero- 3-phosphocholine, 1-myristoyl-2-palmitoylglycero-3-phosphocholine, 1,3-palmitoylglycero-2-phospho-choline, 1,2-dipalmitoylglycero-3-phosphocholine, 1-myristoyl-2-stearoylglycero-3-phosphocholine, 1-stearoyl-3-myristoylglycero-2-phosphocholine, 1-stearoyl-2-palmitoylglycero-3-phosphocholine, 1-palmitoyl-2-stearoylglycero-3-phosphocholine, 1,3-distearoylglycero-2-phosphocholine, 1,2-di-stearoylglycero-3-phosphocholine, 1,2-di-arachinoylglycero-3-phosphocholine, 1,2-di-behenoylglycero-3-phosphocholine and 1,2-di-lignoceroylglycero-3-phosphocholine.

31. (new) The liposome as claimed in claim 29, wherein said phosphatidyloligoglycerol is dipalmitoylphosphoglyceroglycerol.

32. (new) The liposome as claimed in claim 29 comprising 20 to 75% of dipalmitoyllecithin, 10 to 25% of distearoyllecithin and more than 15 to 50% of dipalmitoylphosphoglyceroglycerol.

33. (new) The liposome as claimed in claim 29, further comprising up to 15% of at least one alkylphosphocholine.

34. (new) The liposome as claimed in claim 33, comprising 10 to 15% of at least one of hexadecylphosphocholine, oleoyl-phosphocholine or ether lysolecithin.

35. (new) The liposome as claimed in claim 29, wherein it contains no cholesterol.

36. (new) The liposome as claimed in claim 29, further comprising an active compound or a labelling substance.

37. (new) The liposome as claimed in claim 30, wherein said phosphatidyloligoglycerol is dipalmitoylphosphoglyceroglycerol.

38. (new) The liposome as claimed in claim 29, wherein the liposome consists essentially of said at least one phosphatidylcholine.

39. (new) A process for controlled release of liposome contents from a thermolabile liposome according to claim 29, wherein said thermolabile liposome comprises at least one phosphatidylcholine having a main transition temperature in the range from 0 to 80°C and more than 15 to 70% by weight of phosphatidyl-oligoglycerol, wherein the controlled release is performed by a change in temperature.

40. (new) The process as claimed in claim 39, wherein said at least one phosphatidylcholine is selected from the group consisting of 1-palmitoyl-2-olioylglycero-3-phosphocholine, 1-stearoyl-2-olioyl-3-phosphocholine, 1-palmitoyl-2-lauroyl-glycero-3-phosphocholine, l-behenoyl-2-olioyl-glycero-3-phosphocholine, 1-stearoyl-2-lauroyl-glycero-3-

phosphocholine, ,3-dimyristoylglycero-2-phosphocholine, 1,2-dimyristoylglycero-3-phosphocholine, 1-palmitoyl-2-myristoylglycero-3-phosphocholine, l-stearoyl-2-myristoylglycero-3-phosphocholine, 1-myristoyl-2-palmitoylglycero-3-phosphocholine, 1,3-palmitoylglycero-2-phosphocholine, 1,2-dipalmitoylglycero-3-phosphocholine, l-myristoyl-2-stearoylglycero-3-phosphocholine, l-stearoyl-3-myristoylglycero-2-phosphocholine, 1-stearoyl-2-palmitoylglycero-3-phosphocholine, 2-palmitoyl-2-stearoylglycero-3-phosphocholine, 1,3-distearoylglycero-2-phosphocholine, 1,2-di-stearoylglycero-3-phosphocholine, 1,2-di-arachinoylglycero-3-phosphocholine, 1,2-di-behenoylglycero-3-phosphocholine and 1,2-dilignoceroylglycero-3-phosphocholine.

41. (new) The process as claimed in claim 39, wherein said phosphatidyloligoglycerol is dipalmitoylphosphoglyceroglycerol.

42. (new) The process as claimed in claim 39, wherein said thermolabile liposome comprises from 20 to 75% of dipalmitoyl-phosphatidylcholine from 10 to 25% of distearoylphosphatidylcholine and more than 15 to 50% of dipalmitoylphosphoglyceroglycerol.

43. (new) The process as claimed in claim 39, wherein said thermolabile liposome further comprises up to 15% of at least one alkylphosphocholine.

44. (new) The process as claimed in claim 43, wherein said thermolabile liposome comprises 10 to 15% of at least one of hexadecylphosphocholine or oleoylphosphocholine.

45. (new) The process as claimed in claim 39, wherein said thermolabile liposome contains no cholesterol.

46. (new) The process as claimed in claim 39, wherein said thermolabile liposome further comprises an active compound or a labelling substance.

47. (new) The process as claimed in claim 40, wherein said phosphatidyloligoglycerol is dipalmitoylphosphoglyceroglycerol.

48. (new) The process as claimed in claim 43, wherein said thermolabile liposome comprises 10 to 15% of ether lysolecithin.